be checked within four hours before the test and the analyzer adjusted if the reading is more than two percent different from the span gas value. In low-volume stations, analyzers must undergo a two-point calibration within 72 hours before each test, unless changes in barometric pressure are compensated for automatically and statistical process control demonstrates equal or better quality control using different frequencies. Gas calibration is accomplished by introducing span gas that meets the requirements of paragraph (e)(3) of this section into the analyzer through the calibration port. No adjustment of the analyzer is necessary if the analyzer reads the span gas within the allowable tolerance range; that is, the square root of sum of the squares of the span gas tolerance (described in paragraph (e)(3) of this section) and the calibration tolerance (which is equal to two percent). The gas calibration procedure corrects readings that exceed the allowable tolerance range to the center of the allowable tolerance range. The pressure in the sample cell must be the same with the calibration gas flowing during calibration as with the sample gas flowing during sampling. If the system is not calibrated, or the system fails the calibration check, the analyzer must lock out from testing.

(2) *Span points.* A two-point gas calibration procedure must be followed. The span is accomplished at one of the pairs of span points listed in paragraphs (e)(2)(i) and (ii) of this section.

(i)(A) 300 ppm and 1200 ppm propane (HC).

(B) 1.0% and 4.0% carbon monoxide (CO).

(C) 6.0% and 12.0% carbon dioxide (CO_2).

(D) (if equipped for nitric oxide) 1000 ppm and 3000 ppm nitric oxide (NO).

(ii)(A) 0 ppm and 600 ppm propane (HC).

(B) 0.0% and 1.6% carbon monoxide (CO).

(C) 0.0% and 11.0% carbon dioxide (CO_2)

(D) (if equipped for nitric oxide) 0 ppm and 1200 ppm nitric oxide (NO).

(3) *Span gases.* The analyzed concentrations for the span gases used for calibration must be nominally within two percent of the span points specified in paragraph (d)(2) of this section and must be traceable to National Institute of Standards and Technology (NIST) standards within two percent. Zero gases must conform to the specifications given in §86.114–79 (a)(5) of this chapter.

(f) *Dynamometer checks.*—(1) *Monthly check.* Within one month preceding each loaded test, the accuracy of the roll speed indicator must be verified and the dynamometer must be checked for proper power absorber settings.

(2) *Semi-annual check.* Within six months preceding each loaded test as described in §85.2217, the road-load response of the variable-curve dynamometer or the frictional power absorption of the dynamometer must be checked by a coast down procedure similar to that described in §86.118–78 of this chapter. The check is done at 30 mph (48 kph), and a power absorption load setting to generate a power of 4.1 horsepower (or 3.057 kilowatts). The actual coast down time from 45 mph to 15 mph (72 kph to 24 kph) must be within +1 second of the time calculated by the equation in paragraph (f)(2)(i) of this section for English system units or paragraph (f)(2)(ii) of this section for SI units.

(i) $$\text{Coast Down Time} = \frac{0.10932 \times W}{P}$$

where W is the total inertia weight as represented by the weight of the rollers (excluding free rollers), and any inertia flywheels used, measured in pounds, and P is power, measured in horsepower. If the coast down time is not within the specified tolerance the dynamometer must be taken out of service and corrective action must be taken.

(ii) $$\text{Coast Down Time} = \frac{0.17978 \times W}{P}$$

where W is the total inertia weight as represented by the weight of the rollers (excluding free rollers), and any inertia flywheels used, measured in kilograms, and P is power, measured in kilowatts. If the coast down time is not within

the specified tolerance the dynamometer must be taken out of service and corrective action must be taken.

(g) *Other checks.* In addition to the other periodic checks described in this section, those described in paragraphs (g)(1) and (2) of this section are also used to verify system performance under the special circumstances described therein.

(1) *Gas calibration.* (i) Each time the analyzer electronic or optical systems are repaired or replaced, a gas calibration is performed prior to returning the unit to service.

(ii) In high-volume stations, monthly multi-point calibrations are performed. Low-volume stations must perform multi-point calibrations every six months. The calibration curve is checked at 20 percent, 40 percent, 60 percent, and 80 percent of full scale, and must be adjusted or repaired if the specifications in §85.2225(c)(1) are not met.

(2) *Leak checks.* Each time the sample line integrity is broken, a leak check is performed prior to testing.

[58 FR 58415, Nov. 1, 1993; 59 FR 33913, July 1, 1994]

§§85.2234–85.2236 [Reserved]

§85.2237 Test report—EPA 81.

(a) *Applicability.* The requirements of this subsection apply to short tests conducted under Emissions Performance Warranty through December 31, 1993. The requirements of §85.2238 apply concurrently until December 31, 1993, after which the requirements of §85.2238 are solely in effect. The following exceptions apply: In a state where the Administrator has approved a SIP revision providing for implementation of a basic centralized program meeting the requirements of part 51, subpart S of this chapter, according to the schedule specified in §51.373 of this chapter, the requirements of this section are concurrently in effect until June 30, 1994, for 1995 and earlier model year vehicles or engines; in a state where the Administrator has approved a SIP revision providing for implementation of an enhanced program meeting the requirements of part 51, subpart S of this chapter, according to the schedule specified in §51.373 of this chapter, the requirements of this section are concurrently in effect until December 31, 1995, for 1995 and earlier model year vehicles or engines.

(b) Upon failure of a short test, the vehicle's operator or owner shall be furnished with a test report containing:

(1) Vehicle description, including either license plate or manufacturer identification number, and odometer readings.

(2) Date of test.

(3) Name of individual or organization performing the test and location thereof.

(4) Type of short test performed.

(5) Test results, exhaust concentrations for each mode measured.

(c) The test report shall certify that the short test was performed in accordance with these regulations and it shall be signed by an individual who either performed the test or has actual knowledge of the performance of the test.

(d) For purposes of this section, ''failure of a short test'' means that the vehicle exceeded the standards in this subpart or the Inspection/Maintenance standards of the jurisdiction, whichever is less stringent.

[49 FR 24323, June 12, 1984. Redesignated and amended at 58 FR 58403, 58416, Nov. 1, 1993]

§85.2238 Test report—EPA 91.

(a) *Special calendar and model year applicability.* The requirements of §85.2237 apply concurrently for tests conducted under Emission Performance Warranty on 1995 and earlier model year vehicles or engines until December 31, 1993, after which the requirements of this section are solely in effect. The following exceptions apply: In a state where the Administrator has approved a SIP revision providing for implementation of a basic centralized program meeting the requirements of part 51, subpart S of this chapter, according to the schedule specified in §51.373 of this chapter, the requirements of §85.2237 are concurrently in effect until June 30, 1994 for 1995 and earlier model year vehicles or engines; in a state where the Administrator has approved a SIP revision providing for implementation of an enhanced program meeting the requirements of part 51, subpart S of this

chapter, according to the schedule specified in § 51.373 of this chapter, the requirements of § 85.2237 are concurrently in effect until December 31, 1995 for 1995 and earlier model year vehicles or engines.

(b) Upon failure of a short test, the vehicle's owner or operator must be furnished with a test report containing the information listed in paragraphs (b)(1) through (7) of this section.

(1) Vehicle description, including license plate number, vehicle identification number, weight class, and odometer reading.

(2) Date and time of test.

(3) Name or identification number of the individual performing the test and the location of the test station and lane.

(4) Type of emission test performed.

(5) Applicable emission test standards.

(6) Test results, including exhaust concentrations for each mode measured.

(i) The reported exhaust concentrations are that pair of passing exhaust concentrations or, if none are obtained, that pair of failing exhaust concentrations, for which the product of HC+(151*CO) is a minimum.

(ii) If a second-chance test is conducted the reported exhaust concentrations are those obtained from the second-chance test.

(7) A statement indicating the availability of warranty coverage as provided in section 207 of the Clean Air Act (42 U.S.C. 7541).

(c) The test report must certify that the short test was performed in accordance with these regulations and, in the case of service station based programs, it must be signed by the individual who performed the test.

[58 FR 58416, Nov. 1, 1993]

Subpart X—Determination of Model Year for Motor Vehicles and Engines Used in Motor Vehicles Under Section 177 and Part A of Title II of the Clean Air Act

SOURCE: 60 FR 4738, Jan. 24, 1995, unless otherwise noted.

§ 85.2301 Applicability.

The definitions provided by this subpart are effective February 23, 1995 and apply to all light-duty motor vehicles and trucks, heavy-duty motor vehicles and heavy-duty engines used in motor vehicles, and on-highway motorcycles as such vehicles and engines are regulated under section 177 and Title II part A of the Clean Air Act.

§ 85.2302 Definition of model year.

Model year means the manufacturer's annual production period (as determined under § 85.2304) which includes January 1 of such calendar year, provided, that if the manufacturer has no annual production period, the term ''model year'' shall mean the calendar year.

§ 85.2303 Duration of model year.

A specific model year must always include January 1 of the calendar year for which it is designated and may not include a January 1 of any other calendar year. Thus, the maximum duration of a model year is one calendar year plus 364 days.

§ 85.2304 Definition of production period.

(a) The ''annual production period'' for all models within an engine family of light-duty motor vehicles, heavy-duty motor vehicles and engines, and on-highway motorcycles begins either: when any vehicle or engine within the engine family is first produced; or on January 2 of the calendar year preceding the year for which the model year is designated, whichever date is later. The annual production period ends either: When the last such vehicle or engine is produced; or on December 31 of the calendar year for which the model year is named, whichever date is sooner.

(b) The date when a vehicle or engine is first produced is the ''Job 1 date,'' which is defined as that calendar date on which a manufacturer completes all manufacturing and assembling processes necessary to produce the first saleable unit of the designated model which is in all material respects the same as the vehicle or engine described in the manufacturer's application for certification. The ''Job 1 date'' may be